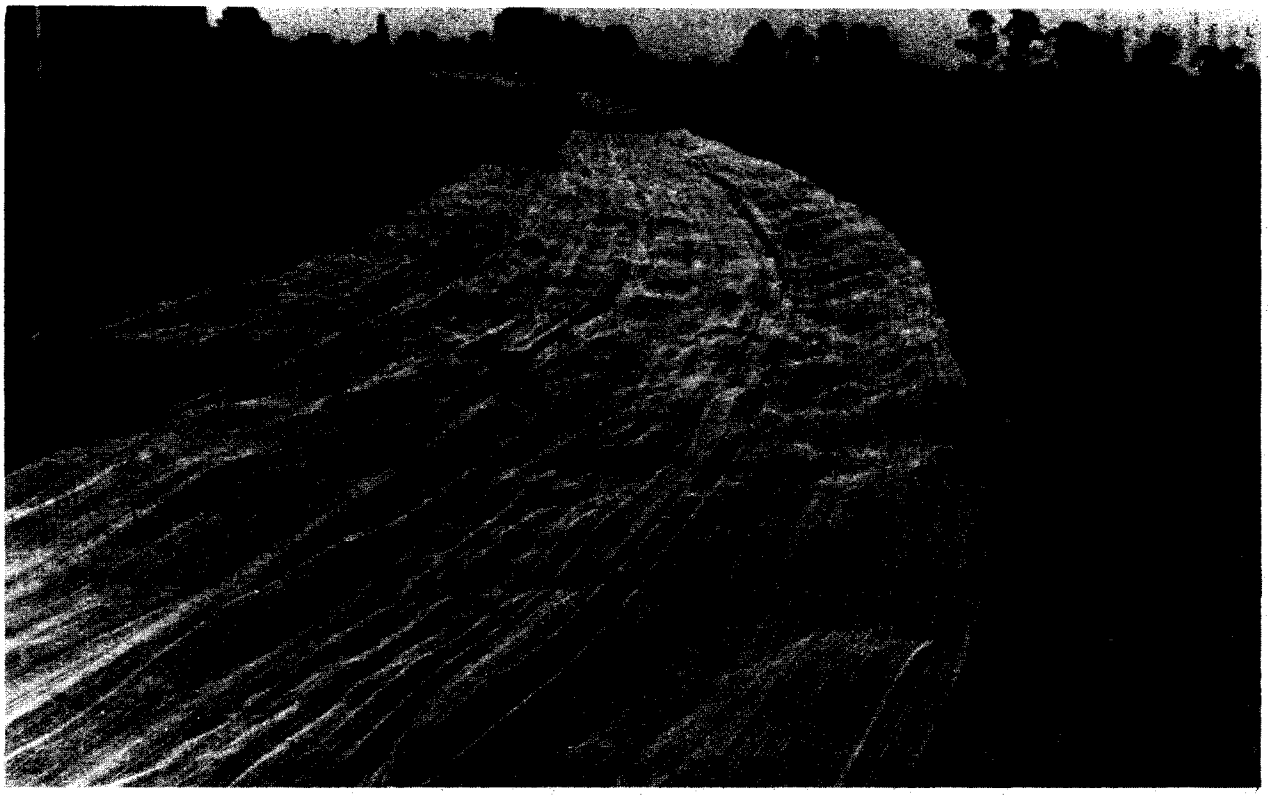
Mulching

General

Mulching consists of the application of materials such as straw, hay, wood chips, or shredded bark to the soil surface to conserve moisture, prevent surface compaction or crusting, control weeds, and help protect the site from erosion. Mulch can be applied alone to help prevent soil erosion during times when weather conditions do not permit seeding with temporary or permanent vegetation. Mulch is also recommended for use as a step in the overall seeding process. A properly applied mulch reduces soil erosion by protecting the soil surface, slows the rate of surface runoff, and increases the infiltration rate of the soil. This protection greatly improves the chances of seeds to germinate and grow.

This mulching was applied on a seeding around an industrial plant.



A plastic netting is placed in a waterway to anchor straw mulch.

Mulching

Definition: Application of plant residues or other suitable materials, not produced on the site, to the surface of the soil.

Purpose: To conserve moisture, prevent surface compaction or crusting, reduce runoff and erosion, and control weeds.

Where Applicable: On severely eroded areas, on disturbed areas such as newly constructed dams, outlets, waterways, and channel banks. Includes all cuts and fills resulting from construction. It is applicable as a temporary erosion control measure without seeding and on seeded areas.

Specifications

Mulch Rates and Length Limits for Construction Slopes

Mulching Material	Mulch Rate (Tons/Ac)	Land Slope (Percent)	Length Limit (Feet)
Straw or hay,	1.5	1-5	300
tied down by	1.5	6-10	150
anchoring and	2.0	1-5	400
tacking	2.0	6-10	200
equipment	2.0	11-15	150
	2.0	16-20	100
	2.0	21-25	75
	2.0	26-33	50
	2.0	34-50	35

Mulching Material

Mulch Rate (Tons/Ac)	Land Slope (Percent)	Length Limit (Feet)
Crushed Stone, 135	< 16	200
1/4 to 1-1/2 in. 135	16-20	150
135	21-33	100
135	34-50	75
240	< 21	300
240	21-33	200
240	34-50	150
Wood Chips 7	< 16	75
7	16-20	50
12	< 16	150
12	16-20	100
12	21-33	75
25	< 16	200
25	16-20	150
25	21-33	100
25	34-50	75

NOTE: Maximum slope length for which the specified mulch rate is considered effective. When this limit is exceeded, either a higher application rate or mechanical shortening of the effective slope length is required.

1. Types of mulch:

   a. Straw or hay — 1-1/2 to 2 tons per acre with seeding. 3 tons per acre used alone.
   b. Wood fiber — 1,000 to 2,000 pounds per acre.
   c. Mulch netting with excelsior, straw, coconut hair, nylon, or paper woven onto it. Use for waterways, areas subject to wind, or areas where other mulches are not available.
   d. Crushed stone — 135 to 240 tons per acre.
   e. Wood chips — 7 to 25 tons per acre.

2. Types of mulch anchoring:

   a. Straw or hay mulch

      (1) Asphalt emulsion sprayed on at 100 to 150 gallons per acre.
      (2) Chemical anchoring solution sprayed on at manufacturer's recommendation.
      (3) Mulch netting of plastic or jute stapled in place.
      (4) Mulch anchoring tool.

   b. Wood fiber mulch

      (1) Chemical anchoring solution sprayed on at manufacturer's recommendation.

   c. Mulch netting

      (1) Staples installed at manufacturer's recommendation.

   d. Crushed stone
   e. Wood chip

3. Types of application equipment:

   a. straw or hay mulch — mulch blower or by hand.
   b. wood fiber mulch — hydroseeder.
   c. mulch netting — by hand.
   d. crushed stone — by hand.
   e. wood chips — by hand